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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,883	01/30/2001	Masaaki Ogura	202561US2	2675

22850 7590 10/07/2004

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EXAMINER

HUNTSINGER, PETER K

ART UNIT PAPER NUMBER

2624

DATE MAILED: 10/07/2004

b

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/771,883

Applicant(s)

OGURA, MASA AKI

Examiner

Peter K. Huntsinger

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/29/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to because in Fig. 7, the decision S5 does not clearly indicate the next step when timer A is timeout. The arrow extended from the right side of S5 should clearly connect to the line proceeding to S12. Correction is required.

In Fig. 15A, "FTS REQUEST" is improperly referred to as "FST REQUEST". Similarly, "FTS VALUE" is improperly referred to as "FST VALUE" Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: An on/off control unit is mislabeled as an "on/on control unit". (See page 17, line 24) On page 27, line 8 and 9, it is recommended that "timer A is timeout" should be changed to say "timer B is timeout". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The claim reads that an inquiry signal is transmitted to the IFD in response to an idle-state or inaccessibility signal from the IFD. The specification only discloses an idle-state or inaccessibility signal from the IFD in response to an inquiry

signal. It appears that the claim reverses the order of the "inquiry signal" and the "idle state or inaccessibility signal".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 9-12, 15-19, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okazawa and Callele et al.

Okazawa discloses "an image forming device management system in which a data communication device (interface section 150) is connected to one or a plurality of image forming devices (printing apparatus main body 100-1 and printing apparatus main body 100-2) and a central control system (host computer 130-1) is connected to the data communication device and provides a remote maintenance of the one or the plurality of image forming devices through data communication device (Col. 2, lines 4-8), the image forming device management system comprising the one or the plurality of image forming devices (printing apparatus main body 100-1 and printing apparatus main body 100-2), the data communication device (interface section 150), and the central control system (host computer 130-1), wherein each image forming device comprises a power-source on/off control unit (input/output processor 111) automatically turning on, when a communication request signal sent

by the data communication device is received by the image forming device, a supplying of a power from a main power source to the image forming device concerned (Col 4, lines 61-65) and , and the power-source on/off control unit automatically turning off the supplying of the power from the main power source to the image forming device after a communication between the data communication device and the image forming device ends (Col 7, lines 10-20).” Okazawa does not expressly disclose a public switched telephone network connecting the central control system to the data communication device.

Callele et al. discloses a computer telecommunications signaling interface that converts information from a computer to a format for transmission to a telephone switch and converts information from a telephone switch to a format for transmission to a computer. (See Col. 3, lines 13-27)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to connect a central computer system to a data communication device with computer telecommunication signaling interfaces via a public telephone switching network in place of the communication means between the host computer and interface section of Okazawa. One of ordinary skill in the art would have been motivated to do this to allow a central computer system to be separated a great distance from a data communication device and image forming devices and because of the conventionality of a PSTN to connect a central control system with remote device of all types.

Referring to claim 2, Okazawa discloses "the power-source on/off control unit of each image forming device is configured to automatically turn off the supplying of the power when the image forming device satisfies predetermined power-off conditions after the end of the communication between the data communication device and the image forming device." (Col. 7, lines 10-20)

Referring to claim 3, Okazawa discloses "the power-source on/off control unit of each image forming device is configured such that the power-source on/off control unit determines that the image forming device satisfies power-off conditions, when a given time period has elapsed after the end of the communication, and that the power-source on/off control unit automatically turns off the supplying of the power in accordance with the determination." (Col. 7, lines 10-20, particularly lines 12-15)

Referring to claim 4, Okazawa discloses "the power-source on/off control unit of each image forming device is configured such that the power-source on/off control unit determines that the image forming device satisfies power-off conditions, when a given time period has elapsed after the end of the communication with the image forming device staying in an inactive condition, and that the power-source on/off control unit automatically turns off the supplying of the power in accordance with the determination." (Col. 7, lines 10-20)

Referring to claim 5, Okazawa discloses "each image forming device further comprises a signal send-back unit sending, during a period from a time the supplying of the power started by the power-source on/off control unit to a time an initialization of the image forming device ends, one of an idle-state signal and an

inaccessibility signal to the data communication device (S14, Col. 7, lines 60-67) in response to an inquiry signal from the data communication device (S21, Col.8, lines 35-36)."

Referring to claim 9, Okazawa discloses "the power-source on/off control unit of each image forming device automatically turns on, when a selecting signal, which is sent by the data communication device and designates the image forming device concerned as a destination device, is received by the image forming device concerned, the supplying of the power from the main power source to the image forming device concerned." (S35, see Col. 10, lines 25-32)

Referring to claim 10, Okazawa discloses "a data communication device (interface section 150) for use in an image forming device management system, the data communication device being connected to one or a plurality of image forming devices (printing apparatus main body 100-1 and printing apparatus main body 100-2) and a central control system (host computer 130-1) being connected to the data communication device and providing a remote maintenance of the one or the plurality of image forming devices through the data communication device (Col. 2, lines 4-8), the data communication device comprising a request signal transmission unit transmitting a communication request signal to the image forming device concerned among the one or the plurality of image forming devices, and the image forming device concerned automatically turning on, when the request signal is received by the image forming device concerned, a supplying of a power from a main power source to the image forming device concerned (Col. 4, lines 61-65)."

Okazawa does not expressly disclose a public switched telephone network connecting the central control system to the data communication device.

Callele et al. discloses a computer telecommunications signaling interface that converts information from a computer to a format for transmission to a telephone switch and converts information from a telephone switch to a format for transmission to a computer. (See Col. 3, lines 13-27)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to connect a central computer system to a data communication device with computer telecommunication signaling interfaces via a public telephone switching network in place of the communication means between the host computer and interface section of Okazawa. One of ordinary skill in the art would have been motivated to do this to allow a central computer system to be separated a great distance from a data communication device and image forming devices and because of the conventionality of a PSTN to connect a central control system with remote device of all types.

Referring to claim 11, Okazawa discloses "the request signal transmission unit transmits a selecting signal, which designates the image forming device concerned as a destination device, to the one or the plurality of image forming devices." (S35, Col. 10, lines 25-32)

Referring to claim 12, the examiner has analyzed the idle-state or inaccessibly signal from the image forming device to occur in response to an inquiry signal from the data communication device, similar to claims 5 and 19, opposed to

as written. (See above 35 U.S.C. 112 rejections) Okazawa discloses "the data communication device comprises an inquiry signal transmission unit transmitting an inquiry signal (S21, Col.8, lines 35-36) to the image forming device concerned in response to one of an idle-state signal and an inaccessibility signal (S14, see Col. 7, lines 60-67) that is sent by the image forming device concerned during a period from a time the image forming device concerned starts the supplying of the power to a time an initialization of the image forming device concerned ends."

Referring to claim 15, Okazawa discloses "an image forming device (printing apparatus main body 100-1) for use in an image forming device management system wherein a data communication device (interface section 150) is connected to the image forming device and a central control system (host computer 130-1) is connected to the data communication device and provides a remote maintenance of the image forming device network and the data communication device (Col. 2, lines 4-8), the image forming device comprising: a power-source on/off control unit (input/output processor 111) automatically turning on, when a communication request signal sent by the data communication device is received by the image forming device, a supplying of a power from a main power source to the image forming device concerned (Col 4, lines 61-65) ; and the power-source on/off control unit automatically turning off the supplying of the power from the main power source to the image forming device after a communication between the data communication device and the image forming device ends. (Col 7, lines 10-20)" Okazawa does not

expressly disclose a public switched telephone network connecting the central control system to the data communication device.

Callele et al. discloses a computer telecommunications signaling interface that converts information from a computer to a format for transmission to a telephone switch and converts information from a telephone switch to a format for transmission to a computer. (See Col. 3, lines 13-27)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to connect a central computer system to a data communication device with computer telecommunication signaling interfaces via a public telephone switching network in place of the communication means between the host computer and interface section of Okazawa. One of ordinary skill in the art would have been motivated to do this to allow a central computer system to be separated a great distance from a data communication device and image forming devices and because of the conventionality of a PSTN to connect a central control system with remote device of all types.

Referring to claim 16, Okazawa discloses "the power-source on/off control unit is configured to automatically turn off the supplying of the power when the image forming device satisfies predetermined power-off conditions after the end of the communication between the data communication device and the image forming device." (Col. 7, lines 10-20)

Referring to claim 17, Okazawa discloses "the power-source on/off control unit is configured such that the power-source on/off control unit determines that the

image forming device satisfies power-off conditions, when a given time period has elapsed after the end of the communication, and that the power-source on/off control unit automatically turns off the supplying of the power in accordance with the determination.” (Col. 7, lines 10-20, particularly lines 12-15)

Referring to claim 18, Okazawa discloses “the power-source on/off control unit is configured such that the power-source on/off control unit determines that the image forming device satisfies power-off conditions, when a given time period has elapsed after the end of the communication with the image forming device staying in an inactive condition, and that the power-source on/off control unit automatically turns off the supplying of the power in accordance with the determination.” (Col. 7, lines 10-20)

Referring to claim 19, Okazawa discloses “the signal send-back unit sending, during a period from a time the power-source on/off control unit starts the supplying of the power to a time an initialization of the image forming device ends, one of an idle-state signal and an inaccessibility signal (S14, Col. 7, lines 60-67) to the data communication device in response to an inquiry signal (S21, Col.8, lines 35-36) from the data communication device.”

Referring to claim 23, Okazawa discloses “the power-source on/off control unit is configured to automatically turn on, when a selecting signal, which is sent by the data communication device and designates the image forming device as a destination device, is received by the image forming device, the supplying of the

power from the main power source to the image forming device." (S35, see Col. 10, lines 25-32)

Referring to claim 24, Okazawa discloses "an image forming device management method in which a data communication device (interface section 150) is connected to one or a plurality of image forming devices (printing apparatus main body 100-1 and printing apparatus main body 100-2) and a central control system (host computer 130-1) is connected to the data communication device and provides a remote maintenance of the one or the plurality of image forming devices and the data communication device (Col. 2, lines 4-8), comprising the steps of: transmitting a communication request signal from the data communication device to the image forming device concerned; automatically turning on, when the request signal is received by the image forming device concerned, a supplying of a power from a main power source to the image forming device concerned (Col. 4, lines 61-65); and automatically turning off the supplying of the power from the main power source to the image forming device concerned after a communication between the data communication device and the image forming device concerned ends (Col 7, lines 10-20)." Okazawa does not expressly disclose a public switched telephone network connecting the central control system to the data communication device.

Callele et al. discloses a computer telecommunications signaling interface that converts information from a computer to a format for transmission to a telephone switch and converts information from a telephone switch to a format for transmission to a computer. (See Col. 3, lines 13-27)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to connect a central computer system to a data communication device with computer telecommunication signaling interfaces via a public telephone switching network in place of the communication means between the host computer and interface section of Okazawa. One of ordinary skill in the art would have been motivated to do this to allow a central computer system to be separated a great distance from a data communication device and image forming devices and because of the conventionality of a PSTN to connect a central control system with remote device of all types.

6. Claims 6, 7, 13, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okazawa and Callele et al. as applied to claim 1-5, 9-12, 15-19, 23, and 24 above, and further in view of Park et al. The combination of Okazawa and Callele et al. disclose the image forming device system according to claim 1. Okazawa and Callele et al. do not expressly disclose a power supplied portion setting unit as recited in claim 6.

Park et al. discloses "each image forming device further comprises a power-supplied portion setting unit setting ((power-saving control unit 60), in advance, any of a plurality of portions of the image forming device as being power-supplied portions to which the power from the main power source is to be supplied, such that the power-source on/off control unit automatically turns on, when the communication request signal is received by the image forming device, the supplying of the power

from the main power source to only the power-supplied portions of the image forming device.” (Col. 7, lines 5-15)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate multiple power saving modes into the image forming device system of Okazawa and Callele et al. One of ordinary skill in the art would have been motivated to do this because it would decrease the power usage in an image forming device system.

Referring to claim 7, Park et al. discloses a “data communication device comprises a power-supplied portion selection unit transmitting a power-supplied portion selection signal (Horizontal sync. and Vertical sync. in Table 1) to the image forming device concerned, so that any of the plurality of portions of the image forming device concerned are selected, in advance, in accordance with the power-supplied portion selection signal as being the power-supplied portions, and the power-source on/off control unit of the image forming device concerned automatically turning on, when the communication request signal is received by the image forming device concerned, the supplying of the power from the main power source to only the power-supplied portions of the image forming device concerned.” (Col. 5, lines 31-64)

Referring to claim 13, the combination of Okazawa and Callele et al. disclose the data communication device according to claim 10. Okazawa and Callele et al. do not expressly disclose a power-supplied portion setting unit and a power-supplied portion selection signal as recited in claim 13.

Park et al. discloses "the data communication device comprises a power-supplied portion selection unit (power-saving control unit 60, Col. 7, lines 5-15) transmitting a power-supplied portion selection signal (h.sync. and v.sync., Col. 5, lines 31-64) to the image forming device concerned, so that any of a plurality of portions of the image forming device concerned are selected, in advance, in accordance with the power-supplied portion selection signal as being power-supplied portions to which the power from the main power source is to be supplied, and the image forming device concerned automatically turning on, when the communication request signal is received by the image forming device concerned, the supplying of the power from the main power source to only the power-supplied portions of the image forming device concerned."

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate multiple power saving modes into the image forming device system of Okazawa and Callele et al. One of ordinary skill in the art would have been motivated to do this because it would decrease the power usage in an image forming device system.

Referring to claim 20, the combination of Okazawa and Callele et al. disclose the image forming device system according to claim 15. Okazawa and Callele et al. do not expressly disclose a power-supplied portion setting unit as recited in claim 20.

Park et al. discloses "a power-supplied portion setting unit setting (power-saving control unit 60), in advance, any of a plurality of portions of the image forming device as being power-supplied portions to which the power from the main power

source is to be supplied, wherein the power-source on/off control unit automatically turns on, when the communication request signal is received by the image forming device, the supplying of the power from the main power source to only the power-supplied portions of the image forming device.” (Col. 7, lines 5-15)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate multiple power saving modes into the image forming device system of Okazawa and Calleele et al. One of ordinary skill in the art would have been motivated to do this because it would decrease the power usage in an image forming device system.

Referring to claim 21, Calleele et al. discloses “the power-supplied portion setting unit is configured to receive a power-supplied portion selection signal (Horizontal sync. and Vertical sync. in Table 1) sent by the data communication device, so that any of the plurality of portions of the image forming device are selected, in advance, in accordance with the power-supplied portion selection signal as being the power-supplied portions, and the power-source on/off control unit automatically turning on, when the communication request signal is received by the image forming device, the supplying of the power from the main power source to only the power-supplied portions of the image forming device.” (Col. 5, lines 31-64)

7. Claims 8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okazawa and Calleele et al. in view of Park et al. as applied to claim 6 above, and further in view of Kimura. The combination of Okazawa and

Callele et al. in view of Park et al. disclose an image forming device system according to claim 6, but do not expressly disclose a power-supplied portion display unit as cited in claim 8. Kimura discloses "each image forming device further comprises a power-supplied portion display unit (power save mode indicating means 123) displaying, on an operation/display portion, power-supplied portion information that indicates which of the portions of the image forming device are set as being the power-supplied portions." (Col. 6, lines 50-53)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to display the multiple power save modes disclosed by the combination of Okazawa, Callele et al., and Park et al. with the indicating means disclosed by Kimura. One of ordinary skill in the art would have been motivated to do this to allow the user to view and clearly know the current power save mode of the image forming device. Further, these references are directed to the same field of the endeavor.

Referring to claim 22, the combination of Okazawa and Callele et al. in view of Park et al. disclose an image forming device system according to claim 20, but do not expressly disclose a power-supplied portion display unit as cited in claim 22. Kimura discloses a "a power-supplied portion display unit (power save mode indicating means 123) displaying, on an operation/display portion, power-supplied portion information that indicates which of the portions of the image forming device are set as being the power-supplied portions." (Col. 6, lines 50-53)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to display the multiple power save modes disclosed by the combination of Okazawa, Callele et al., and Park et al. with the indicating means disclosed by Kimura. One of ordinary skill in the art would have been motivated to do this to allow the user to view and clearly know the current power save mode of the image forming device. Further, these references are directed to the same field of the endeavor.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okazawa and Callele et al. in view of Park et al. as applied to claim 13 above, and further in view of Hashimoto et al. The combination of Okazawa and Callele et al. in view of Park et al. disclose the data communication device according to claim 13. However, the combination of Okazawa and Callele et al. in view of Park et al. do not expressly disclose a power-supplied portion selection signal in an internal parameter request signal as recited in claim 14.

Hashimoto et al. discloses "the power-supplied portion selection unit is configured to contain the power-supplied portion selection signal in an internal parameter request signal with respect to the image forming device concerned, and transmit the internal parameter request signal, containing the power-supplied portion selection signal, to the image forming device concerned, so that the image forming device concerned simultaneously receives both the internal parameter request signal and the power-supplied portion selection signal." (Col. 9, lines 11-20) Further,

Fig 15. of Hashimoto is comparable to the applicant's Fig. 21b which shows the claimed "internal parameter".

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate an internal parameter request signal with a power-supplied portion selection signal. One of ordinary skill in the art would have been motivated to do this because it would decrease the communication time between the data communication device and the image forming device. Also, it is noted that Okazawa discloses using a signal to control the power and sleep modes and the "internal parameter" of Hashimoto is a more detailed version of the signal in Okazawa.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (703)306-4088. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PKH
PKH



JOSEPH MANCUSO
PRIMARY EXAMINER